June 26, 2002

Mr. James Hunsicker
Naval Surface Warfare Center - Crane
300 Highway 361
Crane, Indiana 47522

Re: 101-15490-00005
First Minor Source Modification to:
Part 70 permit No.:T101-7341-00005

Dear Mr. Hunsicker:

Naval Surface Warfare Center - Crane was issued Part 70 operating permit T101-7341-00005 on May 15, 2001. An application to modify the source was received on April 8, 2002. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(t) One (1) flare manufacturing process located in Buildings 2504 and 145, with a maximum manufacturing capacity of 180 pounds of magnesium teflon compound per day.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Management (OAM).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The source may begin construction and operation when the minor source modification has been issued. Operating conditions shall be incorporated into the Part 70 operating permit as a minor permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12.

The source may begin construction when the source modification has been issued. The source must comply with the requirements of 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12 before operation of any of the proposed emission units can begin.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mike Heaney, ERG,1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7870 to speak directly to Mr. Heaney. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments

ERG/MH

cc: File - Martin County
Martin County Health Department
Air Compliance Section Inspector - Gene Kelso
Compliance Data Section - Karen Nowak
Administrative and Development -Sara Cloe
Technical Support and Modeling - Michele Boner

PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Naval Surface Warfare Center, Crane Division
300 Highway 361
Crane, Indiana 47522

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T101-7341-00005	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: May 15, 2001 Expiration Date: May 14, 2006

First Significant Source Modification: 101-14493-00005, Issued January 4, 2002
First Significant Permit Modification: 101-14789-00005, Issued January 22, 2002
Second Significant Source Modification: 101-14772-00005, Issued June 7, 2002

First Minor Source Modification: 101-15490-00005 Affected Pages: 127, 138	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: June 26, 2002

SECTION D.23 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(t) One (1) flare manufacturing process located in Buildings 2504 and 145, with a maximum manufacturing capacity of 180 pounds of magnesium teflon viton (MTV) compound per day.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.23.1 Volatile Organic Compounds [326 IAC 8-1-6] [326 IAC 2-2][40 CFR 52.21]

Addition of VOCs to the process shall be limited to less than 25 tons per consecutive twelve (12) month period. Compliance with this limit makes 326 IAC 8-1-6 (New Facilities) not applicable. Compliance with this limit also makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.23.2 Hazardous Air Pollutants [326 IAC 2-4.1][40 CFR 63]

The addition of any individual HAP to the process shall be limited to less than 10 tons per consecutive twelve (12) month period. The total input of HAPs to the process shall be limited to less than 25 tons per consecutive twelve (12) month period. Compliance with this limit makes 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) and 40 CFR 63 not applicable.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.23.3 Record Keeping Requirements

(a) To document compliance with Conditions D.23.1 and D.23.2 the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken daily and shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.23.2.

(1) The amount of HAP or VOC solvent added to the process. The amount added shall not include HAP or VOC reused within the process. Records shall include purchase orders and invoices necessary to verify the amount added.

(2) A log of the dates of solvent addtion;

(3) The weight of HAPs and VOCs emitted for each compliance period.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.23.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.23.1 and D.23.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

Part 70 Quarterly Report

Source Name: Naval Surface Warfare Center, Crane Division
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Building 3260, Code 09510, 300 Highway 361, Crane, IN 47522
Source Modification No: 101-15490-00005
Facility: Flare Manufacturing Process
Parameter: Tons of HAP or VOC solvent
Limit: 10 tons of any HAP or 25 tons of any combination of HAPs added per consecutive twelve (12) month period or 25 tons VOC added per consecutive (12) month period

YEAR:_____

Month	This month		Previous 11 months		12 months total	
	HAP	VOC	HAP	VOC	HAP	VOC
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70
Minor Source Modification and Minor Permit Modification

Source Background and Description

Source Name:	Naval Surface Warfare Center - Crane Division
Source Location:	300 Highway 36, Crane, Indiana 47522
County:	Martin County
SIC Code:	9711 and 3483
Operation Permit No.:	T101-7341-00005
Operation Permit Issuance Date:	May 15, 2001
Minor Source Modification No.:	101-15490-00005
Minor Permit Modification No.:	101-15582-00005
Permit Reviewer:	ERG/MH

The Office of Air Quality (OAQ) has reviewed a modification application from Naval Surface Warfare Center - Crane Division relating to the construction of the following emission units and pollution control devices:

(t) One (1) flare manufacturing process located in Buildings 2504 and 145, with a maximum manufacturing capacity of 180 pounds of magnesium teflon viton (MTV) compound per day discharging to stacks S4, S5, and S6.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S4	Mixer	15	1	1500	70
S5	Oven	15	0.5	150	160
S6	Oven	15	0.5	150	160

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on April 18, 2002, Additional information was received on April 29, 2002.

Emission Calculations

Unlimited PTE

$$\text{Gross Hexane Usage} = \frac{45\ \text{gal}}{\text{batch}} \bullet \frac{3\ \text{batches}}{\text{day}} \bullet \frac{365\ \text{day}}{\text{yr}} \bullet \frac{5.5\ \text{lb}}{\text{gal}} \bullet \frac{\text{ton}}{200\ \text{lb}} = 135.5\ \text{ton / yr}$$

PTE with Solvent Recovery

Magnesium Teflon Viton Compound Production = 180 lb/day (3 batches @ 60 lb/batch)

Hexane Lost in Drying = 14.0% * 180 lb/day * 365 day/yr * ton/2000 lb

Hexane Lost in Drying = 4.63 ton/yr

Hexane Lost in Mixing = Negligible -- approx. 1 lb/day

Total Hexane Emissions = 4.81 ton/yr

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls and solvent recovery. Control equipment and solvent recovery is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0
PM-10	0
SO_2	0
VOC	135.5
CO	0
NO_x	0

HAP's	Potential To Emit (tons/year)
Hexane	135.5
TOTAL	135.5

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5 (d)(5)(A) because the potential to emit a HAP solvent is limited to less than 10 tons per year. Based on pilot-scale testing, this process's potential to emit is less than 10 tons per year if solvent recovery is operating correctly. Recordkeeping is required to ensure that this limit is not exceeded. This justification is based on using hexane, which is both a HAP and a VOC, as the solvent. Permit conditions have been written so that a non-HAP VOC solvent could be substituted. For a non-HAP VOC solvent, the input limit would be 25 tons per year and the modification would be subject to 326 IAC 2-7-

10.5(d)(4)(B)(iii). The permit modification for approval to operate is being performed pursuant to 326 IAC 2-7-12(b).

County Attainment Status

The source is located in Martin County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Martin County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Martin County has been classified as attainment or unclassifiable for all pollutants Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	greater than 250
PM-10	greater than 250
SO_2	greater than 100, less than 250
VOC	greater than 250
CO	greater than 250
NOx	greater than 250

(a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) These emissions are based upon the Technical Support Document for T101-7341-00005.

Potential to Emit of Modification After Issuance

For comparison with PSD significance levels, emissions for this modification have been combined with those of two other new additions at this source, the Contained Detonation Chamber (CDC) (Significant Source Modification 101-14789-00005, issued January 3, 2002) and the Mobile Plasma Treatment System (MPTS) (Significant Source Modification 101-14772-00005, issued June 7, 2002). The emissions are being evaluated in combination because these units are being added within a brief period of time.

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Flare Manufacturing Process	0	0	0	less than 25	0	0	less than 10
MPTS	0.60	0.60	19.75	1.17	2.91	25.41	less than 0.1
CDC	0.51	0.51	0.08	0.18	96.56	14.45	less than 0.1
Total	1.11	1.11	19.83	less than 26.35	99.47	39.86	--
PSD Significant Increase	25	15	40	40	100	40	--

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

This processes HAP emissions are limited to less than 10 tons per year. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 8-1-6 (New Facilities)

This process's potential to emit VOCs is less than twenty five (25) tons per year. Therefore, 326 IAC 8-1-6 does not apply.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Proposed Changes

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(t) One (1) flare manufacturing process located in Buildings 2504 and 145, with a maximum manufacturing capacity of 180 pounds of magnesium teflon viton (MTV) compound per day discharging to stacks S4, S5, and S6.

SECTION D.23 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(t) One (1) flare manufacturing process located in Buildings 2504 and 145, with a maximum manufacturing capacity of 180 pounds of magnesium teflon viton (MTV) compound per day.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.23.1 Volatile Organic Compounds [326 IAC 8-1-6] [326 IAC 2-2][40 CFR 52.21]

Addition of VOCs to the process shall be limited to less than 25 tons per consecutive twelve (12) month period. Compliance with this limit makes 326 IAC 8-1-6 (New Facilities) not applicable. Compliance with this limit also makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.23.2 Hazardous Air Pollutants [326 IAC 2-4.1][40 CFR 63]

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limited to less than 25 tons per consecutive twelve (12) month period. Compliance with this limit makes 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) and 40 CFR 63 not applicable.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.23.3 Record Keeping Requirements

(a) To document compliance with Conditions D.23.1 and D.23.2 the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken daily and shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.23.2.

(1) The amount of HAP or VOC solvent added to the process. The amount added shall not include HAP or VOC reused within the process. Records shall include purchase orders and invoices necessary to verify the amount added.

(2) A log of the dates of solvent addition;

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(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.23.4 Reporting Requirements

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

Part 70 Quarterly Report

Source Name: Naval Surface Warfare Center, Crane Division
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Building 3260, Code 09510, 300 Highway 361, Crane, IN 47522
Source Modification No:101-15490-00005
Facility: Flare Manufacturing Process
Parameter: Tons of HAP or VOC solvent
Limit: 10 tons of any HAP or 25 tons of any combination of HAPs added per consecutive twelve (12) month period or 25 tons VOC added per consecutive (12) month period

YEAR:_____

Month	This month		Previous 11 months		12 months total	
	HAP	VOC	HAP	VOC	HAP	VOC
Month 1						
Month 2						
Month 3						

9 **No deviation occurred in this quarter.**

9 **Deviation/s occurred in this quarter.**
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 101-15490-00005.